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THE GERMAN HOUSING POSITION 1939-1943

This study describes the housing situation in 1939 and brings it up to date by estimating bomb damage, new construction, more intensive utilization of existing dwelling space, and evacuation.

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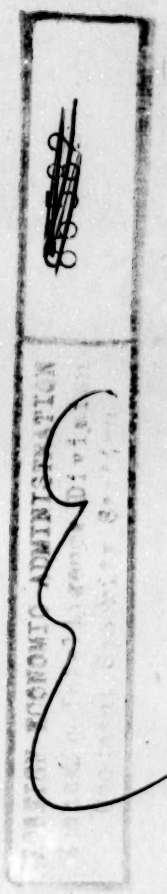

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12 February 1944

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THE GERMAN HOUSING POSITION 1939-1943

SUMMARY

1. At the outbreak of war in 1939 Germany had a housing shortage of at least 1,500,000 dwellings. The number of households exceeded the number of dwellings by 12 percent. War conditions, even before the bombing attacks, further aggravated the housing situation in industrial centers and strategic areas. The volume of residential construction since the beginning of the war has been less than half of normal demand. The total number of dwellings built during the four-year period 1940-43 was about 400,000, including 100,000 units of temporary housing.

2. Air attacks on German cities by the RAF to 1 November 1943 have resulted in the destruction of about 470,000 dwellings and in major structural damage to an additional 300,000 dwellings. The number of dwellings thus rendered uninhabitable for the duration of the war was some 770,000 and the number of persons rendered homeless 2,600,000, or 14.8 percent of the population of the bombed cities.

3. In addition, some 2,300,000 dwellings sustained minor damage, and, though remaining habitable, required emergency repairs. It is estimated that these repairs required about 275,000,000 man-hours of work.

4. The total number of dwellings in the Reich which suffered some bomb damage was in excess of 3,000,000 and the number of persons thus affected was slightly over 10,000,000 or about 60 percent of the population of the 43 cities subjected to RAF night attacks during this period. This is in the nature of a minimum since it does not include damage to housing resulting from attacks by the USAAF and the Russian Air Force.

5. The present estimates of housing damage are decidedly lower than recent estimates coming from neutral sources, and statements emanating from "official" German sources. According to those sources fully 6,000,000 dwellings were damaged. It is not unlikely however that those estimates were deliberate exaggerations by the enemy for some strategic reason.

6. The major solutions to the problem of bomb damage include billeting, emergency housing and evacuation. Of the 2,600,000 who were rendered homeless, some 850,000 were housed in emergency dwellings, including non-residential structures converted into living quarters and newly constructed temporary apartments, dormitories, and barracks; about 1,000,000 were housed with friends and relatives and in surplus or vacant rooms and apartments requisitioned for billeting purposes; the remaining 750,000 were evacuated from the bombed cities.

7. In addition, large numbers of children and non-working adults were transferred to "safe" zones in an extensive

program of precautionary evacuation. It is estimated that 4,500,000 persons were thus evacuated. At least 3,750,000 of these were persons who had not been rendered homeless. The total number of persons leaving their homes, including the bombed-out and the precautionary evacuees, was in excess of 6,000,000.

3. Though the German counter-measures appear to be quite effective in securing shelter for air-raid victims, bomb damage to housing has created five major problems for the Reich:

a. The drain on building materials and labor in effecting emergency repair and construction and the further drain on personnel devoted to the process of rehousing.

b. The increased burden on transportation facilities in effecting precautionary and post-raid evacuation.

c. The loss in production resulting from enforced idleness while workers are being rehoused and the probable reduction in efficiency due to anxiety, disturbance of living habits, increased travel, etc.

d. The disorganization of families and disruption of community organization.

e. The growing feeling of insecurity resulting from destruction of home and loss of belongings; from the loss of privacy and from increased congestion; the transition from normal German home life to one of emergency shelters and to the discomforts of the slum and the barrack.

I. HOUSING IN 1939

A. Estimates of Total Supply

Statements by numerous German authorities, borne out by the results of the 1939 Housing Census, leave no doubt that the shortage of housing and especially the shortage of adequate dwellings for workers constituted one of the most difficult problems facing the Reich in 1939. Estimates of the magnitude of the shortage ranged from 1,000,000 to 4,000,000 dwelling units. Dr. Fredhlutger, leading German architect, estimated that the number of new dwellings needed to satisfy the housing demand in 1939 amounted to 1,500,000 units. In a discussion of housing conditions, the 1939 Report of the German Credit Association states: "The improvement in general employment and income has brought with it a shortage in dwelling houses which has become much more acute during the last few years with the marked rise in marriages since the slump. The present deficiency of dwellings (as measured by the number of families which have not at the moment a dwelling of their own) is estimated at 1,500,000."[1]

In a public address in 1939, Dr. Robert Ley, leader of the German Labor Front, declared that the Reich's housing deficit amounted to 3,000,000 dwellings. The building of such

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1. Quoted in "National Planning in Several Countries" by L.L. Lorwin, National Resources Planning Board, 1941, p. 37.

a number of housing units, he declared, would require 4,500,000 building workers, "which is manifestly impossible". He ascribed the shortage of residential construction to the fact that all available building material and manpower were devoted to rearmanent, "a factor which will continue to operate in the next two or three years as well."[1]

The German Institute of Business Research estimated the shortage of housing in 1939 at approximately 4,000,000 dwelling units.

According to the German Census of 1939, the total number of households in the Old Reich was 20,320,000 and the number of dwellings was 18,120,000 showing an excess of 2,200,000 households over dwellings. It may be assumed that one-fourth of the households without private dwellings consisted of newly established families which, for economic and social reasons, preferred to live with their parents. In other words, at least 1,500,000 German families were compelled to double up with other families because of the scarcity of housing. In addition there were numerous dwellings which were structurally or functionally sub-standard and which were occupied because their occupants could not find adequate housing or could not afford to pay for it.

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1. Based on Consular Report No. 3153, August 1939, by Sam E. Woods, Commercial Attache in Berlin. Dr. Ley was placed in full command of housing in the Reich in October 1942.

B. Measures of Adequacy

Various relationships are used to determine the adequacy of available housing space: number of dwellings per household, number of rooms per dwelling, number of persons per household and per room. In the following paragraphs these measures are given for Germany as of 1939 and are compared with US data for 1940, the latter taken from the Census of Housing and Population.

1. Households - Dwellings. While in Germany the number of dwellings fell 2,200,000 short of the number of households, in the US the number of dwellings exceeded the number of households by the same amount. In relative terms, there were in existence in the US 107 dwellings for each 100 households[1], whereas only 88 dwellings were available for each 100 households in Germany. Since the number of persons per household was the same (3.78) in both countries, these figures are directly comparable, allowing for differences in number of rooms per dwelling.

2. Dwellings - Rooms. German dwellings are generally smaller than those of the US. Of all dwellings in the Reich in 1939, nearly one-half (47.3 percent) were small units of 1-3 rooms. In the US, the corresponding proportion of small

---

1. It is generally accepted among housing authorities that a margin of 5 percent housing surplus is desirable in a normal housing market to provide for flexibility and tenant-mobility.

dwellings is only 26.7 percent. Similarly the percentage of large dwellings, 7 or more rooms, was greater in the US than in the Reich, the percentages being 17.5 percent and 3.4 percent respectively.

3. Rooms - Persons. It follows from 1 and 2 that, regarding the relationship between number of rooms and number of persons, Germany is in an even more unfavorable position than in the case of dwellings per household. In fact, there were 102 rooms per 100 persons in the Reich as against 127 rooms per 100 persons in the US.

4. Structural Adequacy. Since no comparable data are available on structural adequacy of German housing, the age distribution of building residential buildings may be taken as an indication of structural conditions. About three-fourths (74.2 percent) of all residential structures in the Reich were built prior to World War I. The comparable proportion of older buildings in the US is 49.5 percent.

The housing situation in the Reich in 1939 may be described as of limited flexibility because of the inadequate supply of new housing, the relatively small size of dwellings and the age of residential structures. Compared with the US, housing was less adequate in regard to both the household-dwelling and the person-room relationships.

C. Variation within the Reich

The total supply of housing in the Reich is of less importance than the adequacy of the supply in specific regions and cities. Because of the immobility of housing and the necessary concentration of manpower in certain areas, housing is valuable only if it is available in the area needed. In 1939, the various provinces and administrative regions of the Reich varied considerably in regard to housing supply. Large urban communities had a greater housing shortage than smaller towns and rural areas. For example, the excess of households over dwellings was 9.7 percent in places of less than 10,000 population and 13.6 percent in cities of 10,000 and over.

Among the larger cities, over 100,000 population, the following showed housing deficits of 20 percent and over: Bremen, Duisburg, Essen, Gelsenkirchen, Königsberg, Leipzig, and Oberhausen. The city of Cologne was exceptional in that it had no housing deficit, the number of dwellings being equal to the number of households. Housing and related data for German cities of over 50,000 population are presented in Table 1 and Map 1, on the following pages.

Table 1-A. HOUSING STATISTICS, GERMANY, (OLD REICH), 1939, BY SIZE OF COMMUNITY

Size of Groups	Population			Dwellings					Persons per Dwelling	
					Small[a]		New[b]			
	Total	Institutional	Non-institutional	Total	Number	Percent of total	Number	Percent of total	Total	Non-institutional
All Communities	68,474,132	2,968,370	65,505,762	18,119,000	8,564	47.3	4,671,000	25.8	3.78	3.62
less than 2,000	21,039,125	510,577	20,528,548	8,181,000	3,719,000	45.5	1,986,000	24.3	4.05	3.91
2,000 - 10,000	12,129,660	669,076	11,460,584							
10,000 - 50,000	9,866,974	712,214	9,154,760	2,577,000	1,178,000	45.7	755,000	29.3	3.83	3.55
50,000 - 100,000	3,657,767	301,788	3,355,979	973,000	454,000	46.6	263,000	27.1	3.76	3.45
100,000 and over	21,780,606	774,715	21,005,891	6,387,000	3,213,000	50.3	1,668,000	26.1	3.41	3.29

Table 1-A - Continued

Size of Groups	Households						Persons in Family Households	Persons per Hsehld		Hsehlds per Dwelling		Excess of non-insti. Hsehlds over dwellings	
		One-person		Family				All Hsehlds	Non-insti. Hsehlds	All Hsehlds	Non-insti. Hsehlds		
	Total	Number	% of total	Number	% of total	Instit.						Number	As % of all non-instit.
All Communities	20,139,736	1,963,956	9.8	18,099,800	89.9	75,980	63,544,229	3.40	3.26	1.11	1.11	1,944,756	9.7
less than 2,000	5,439,330	361,268	6.6	5,060,357	93.0	17,628	20,168,211	3.87	3.79				
2,000 - 10,000	3,444,592	329,873	9.6	3,096,857	89.9	17,896	11,131,452	3.52	3.34	1.09	1.08	667,355	7.5
10,000 - 50,000	2,916,821	308,606	10.6	2,594,885	89.0	13,342	8,846,563	3.38	3.15	1.13	1.13	326,497	11.2
50,000 - 100,000	1,085,700	115,841	10.7	965,310	88.9	4,568	3,240,320	3.37	3.10	1.12	1.11	108,151	10.0
100,000 and over	7,253,293	848,368	11.7	6,382,391	88.0	22,546	20,157,683	3.00	2.91	1.14	1.13	843,759	11.7

a. Dwellings having 1 - 3 rooms
b. Dwellings built since 1919
Sources: Population and family data taken from 1939 Census reported in Sonderbeilage zu Wirtschaft und Statistik, 1941, No. 17.
Dwelling unit data taken from Vierteljahrshefte zur Statistik des Deutschen Reichs, Heft II, 1939.

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Table 1-B. HOUSING DATA FOR GERMAN CITIES WITH MORE THAN 100,000 INHABITANTS

City	Population 1939	Households 1939	Dwellings 1939	Dwellings 1941	Persons per dwelling 1939	Households per dwelling 1939	Built up area, acres	Persons per acre 1939	Dwellings per acre 1939
	(In thousands)								
Aachen	159.6	53.7	47.3	47.5	3.4	1.1	3,483	46	14
Augsburg	180.0	55.7	51.0	51.8	3.5	1.1	3,585	50	15
Berlin	4,321.5	1,604.9	1,463.0	1,482.6	3.0	1.1	72,321	59	20
Beuthen	101.0	28.8	26.7	28.2	3.8	1.1	1,458	67	18
Bielefeld	126.7	41.0	37.2	38.2	3.4	1.1	3,400	37	11
Bochum	305.5	94.4	81.8	83.4	3.7	1.2	8,650	35	9
Braunschweig	189.6	62.9	54.8	56.0	3.5	1.2	4,070	46	13
Bremen	419.3	130.2	98.4	117.3	4.3	1.3	9,000	47	11
Breslau	621.0	213.9	196.4	200.5	3.2	1.1	10,158	62	20
Chemnitz	334.7	116.8	107.7	109.2	3.1	1.1	6,220	54	17
Darmstadt	110.6	36.1	32.2	33.0	3.4	1.1	2,170	50	15
Dessau	117.1	37.3	32.2	35.5	3.6	1.2	2,772	43	12
Dortmund	537.9	167.5	142.2	145.4	3.8	1.2	19,300	28	7
Dresden	629.7	233.4	214.4	217.4	2.9	1.1	16,138	39	13
Düsseldorf	535.8	176.4	148.4	152.8	3.6	1.2	12,856	42	12
Duisburg	433.5	132.5	110.2	111.2	3.9	1.2	12,000	36	9
Erfurt	159.2	52.4	47.2	47.8	3.4	1.1	3,514	45	14
Essen	664.5	207.5	173.4	177.4	3.8	1.2	15,850	42	11
Frankfurt(a/M.)	548.2	184.6	170.2	171.9	3.2	1.1	12,000	46	14
Gelsenkirchen	317.5	97.0	80.0	81.6	4.0	1.2	8,054	39	10
Gleiwitz	114.0	33.2	30.7	32.0	3.7	1.1	3,128	37	10
Hagen (Westf.)	151.5	47.3	41.9	42.5	3.6	1.1	3,968	38	10
Halle (a.S.)	217.5	71.2	65.9	66.7	3.3	1.1	3,679	59	18
Hamburg	1,698.4	581.5	528.5	536.3	3.2	1.1	35,585	48	15
Hannover	464.6	156.7	141.2	145.2	3.3	1.1	9,672	46	14
Hindenburg	6	38.0	34.4	35.7	3.7	1.1	2,165	57	16

(cont. on following page)

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Table 1-B. HOUSING DATA FOR GERMAN CITIES WITH MORE THAN 100,000 INHABITANTS
(continued)

City	Population 1939	Households 1939	Dwellings 1939	Dwellings 1941	Persons per dwelling 1939	Households per dwelling 1939	Built up area, acres	Persons per acre 1939	Dwellings per acre 1939
	(In thousands)								
Karlsruhe	184.5	8.1	54.7	55.3	3.4	1.1	3,850	49	14
Kassel	211.6	67.0	59.6	61.7	3.6	1.1	3,850	56	16
Kiel	261.3	81.8	71.8	76.8	3.6	1.1	5,400	48	13
Köln	768.4	225.9	225.6	227.5	3.4	1.0	16,800	46	13
Königsberg(Pr)	360.6	109.8	89.8	96.2	4.0	1.2	6,459	55	14
Krefeld	170.2	56.5	51.6	52.9	3.3	1.1	4,570	37	11
Leipzig	702.2	245.2	200.6	224.2	3.5	1.2	11,856	59	17
Lübeck	149.5	47.5	42.4	43.5	3.5	1.1	6,400	23	7
Ludwigshafen	143.9	44.2	40.2	41.3	3.6	1.1	2,688	53	15
Magdeburg	329.8	114.3	105.0	107.7	3.1	1.1	6,558	50	16
Mainz	154.0	50.3	42.9	43.3	3.6	1.2	4,090	38	10
Mannheim	280.4	89.2	81.6	82.6	3.4	1.1	7,500	38	11
Mülheim	136.8	43.3	37.3	38.1	3.7	1.2	5,829	24	6
München	815.2	263.6	241.0	247.5	3.4	1.1	14,000	59	17
München-Gladbach	128.3	38.4	32.4	32.9	4.0	1.2	a	a	a
Münster (i.W.)	132.8	35.4	30.7	31.5	4.3	1.2	4,150	32	7
Nürnberg	420.3	136.8	119.7	122.1	3.5	1.1	7,600	55	16
Oberhausen	191.8	55.9	46.3	47.4	4.1	1.2	6,800	28	7
Osnabrück	104.1	31.7	28.8	30.6	3.6	1.1	2,880	36	10
Plauen	109.6	39.6	36.0	36.5	3.0	1.1	2,261	48	16
Potsdam	126.2	42.5	25.8	39.6	4.9	1.6	2,575	49	10
Remscheid	103.9	34.8	31.2	31.8	3.3	1.1	16,000	65	20
Rostock	118.0	37.5	32.4	33.2	3.6	1.2	2,840	42	12
Saarbrücken	131.3	40.7	36.2	a	3.6	1.1	3,278	40	11
Solingen	140.5	49.9	44.4	44.9	3.2	1.1	5,200	27	9
Stettin	271.0	90.9	81.1	108.0	3.4	1.1	4,509	60	18
Stuttgart	454.3	139.0	128.9	132.0	3.5	1.1	7,463	61	17
Wesermünde	111.0	34.6	23.1	31.3	3.7	1.1	3,202	27	7
Wiesbaden	165.6	57.5	49.2	49.6	3.4	1.2	4,618	35	10
Wilhelmshaven	103.8	29.5	26.2	29.1	4.0	1.1	5,122	21	5
Würzburg	101.3	29.5	27.5	28.0	3.6	1.1	3,128	33	9
Wuppertal	399.7	140.3	123.4	124.3	3.2	1.1	8,500	47	14

a. Information not available.

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Table I-C. HOUSING DATA FOR GERMAN CITIES OF 50,000 TO 100,000 INHABITANTS

City	Population 1939	Households 1939	Dwellings 1939	Dwellings 1941	Persons per dwelling 1939	Households per dwelling 1939	Built up area, acres	Persons per acre 1939	Dwellings per acre 1939
	(In thousands)								
Allenstein	46.5	12.1	a	11.5	4.0	1.1	a	a	a
Bamberg	55.9	16.9	15.4	15.8	3.6	1.1	1,520	37	10
Bonn	98.7	30.3	27.0	27.4	3.7	1.1	1,591	62	17
Bottrop	83.4	23.5	18.8	a	4.4	1.2	3,400	24	6
Brandenburg (Havel)	79.1	24.0	20.9	21.4	3.8	1.1	2,449	32	8
Castrop-Rouxel	56.6	16.7	13.3	13.6	4.3	1.3	2,439	24	5
Cottbus	53.5	19.3	18.5	18.9	2.9	1.1	1,992	27	9
Eisenach	50.5	15.8	14.3	14.5	3.5	1.1	a	a	a
Elbing	85.0	25.8	24.1	25.5	3.3	1.1	1,698	50	14
Emden	34.7	9.8	9.1	a	3.8	1.1	956	36	9
Flensburg	68.0	21.8	20.0	20.1	3.4	1.1	2,120	32	10
Frankfurt (Oder)	77.0	26.4	25.3	25.9	3.0	1.0	2,666	28	9
Freiburg	108.5	30.4	27.8	28.5	3.9	1.1	2,315	47	12
Friedrichshafen	24.8	5.9	5.3	a	4.2	1.1	990	25	5
Fürth	78.8	25.8	23.1	23.4	3.4	1.1	1,614	49	14
Gera	81.9	30.1	28.2	28.4	2.9	1.1	1,900	43	15
Gladbeck	58.7	17.2	14.3	15.0	4.1	1.2	857	59	14
Görlitz	91.6	33.5	31.8	31.9	2.9	1.1	1,903	48	17
Göttingen	49.7	14.9	a	13.8	3.6	a	a	a	a
Gotha	52.0	16.9	15.2	15.4	3.4	1.1	a	a	a
Halberstadt	52.9	17.4	15.7	15.9	3.4	1.1	1,362	38	11
Hamm (Westf.)	56.7	16.9	14.7	15.2	3.9	1.1	1,982	28	7
Herne	94.6	29.0	24.4	24.7	3.9	1.2	2,503	38	10

a. Information not available.

(continued on following page)

Table 1-C. HOUSING DATA FOR GERMAN CITIES OF 50,000 TO 100,000 INHABITANTS
(continued)

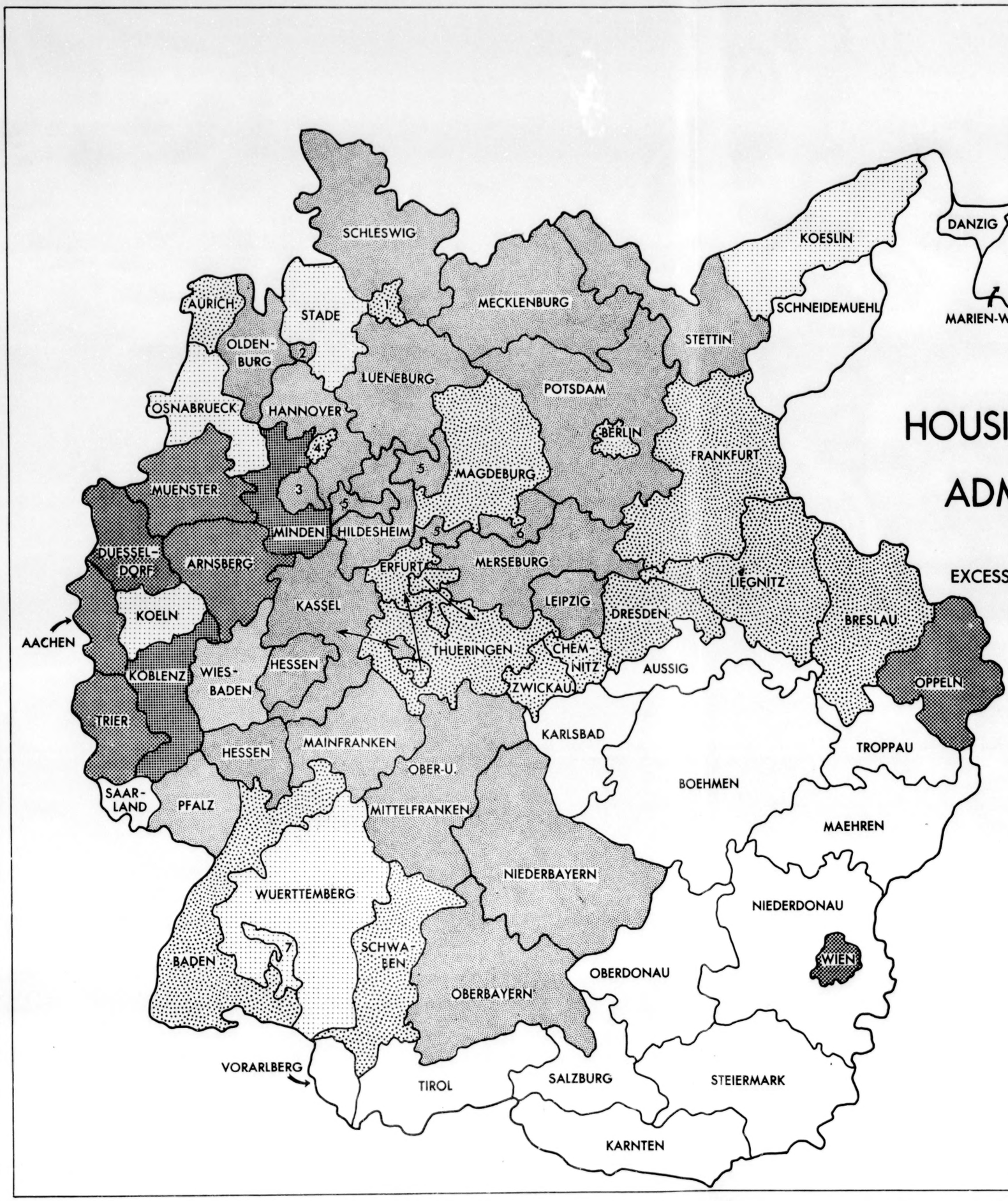
City	Population 1939	Households 1939	Dwellings 1939	Dwellings 1941	Persons per dwelling 1939	Households per dwelling 1939	Built up area, acres	Persons per acre 1939	Dwellings per acre 1939
	(In thousands)								
Heilbronn	74.2	22.7	21.8	22.3	3.4	1.0	1,814	41	12
Heidelberg	64.3	25.6	23.4	23.7	3.6	1.1	2,876	29	8
Hildesheim	68.7	20.9	18.7	19.4	3.7	1.1	1,423	49	13
Jena	68.4	21.5	19.4	20.6	3.5	1.1	1,411	49	14
Kaiserlautern	70.7	20.5	18.9	19.5	a	a	1,502	47	13
Koblenz	86.5	26.3	22.5	23.0	3.8	1.2	1,673	51	13
Leverkusen	50.1	15.2	a	13.4	3.7	1.1	a	a	a
Liegnitz	78.5	27.1	25.3	25.5	3.1	1.1	1,236	65	21
Neumünster	51.6	16.3	15.7	16.5	3.3	1.0	a	a	a
Neuss [11]	59.6	17.3	14.9	15.4	4.0	1.2	a	a	a
Offenbach	85.1	29.1	26.7	27.1	3.2	1.1	1,747	47	15
Oldenburg (i.O.)	74.1	22.2	19.7	20.0	3.8	1.1	5,965	13	3
Oppeln	50.5	14.6	14.2	14.5	3.6	1.0	a	a	a
Pforzheim	78.3	25.1	23.8	23.9	3.3	1.1	1,609	49	15
Ratibor	49.7	14.7	14.4	a	3.4	1.0	1,159	41	12
Recklinghausen	86.3	25.3	20.7	21.0	4.2	1.2	2,481	34	8
Regensburg	90.7	26.1	24.6	25.1	3.7	1.1	2,073	43	12
Rheydt	77.3	24.2	21.0	21.2	3.7	1.2	a	a	a
Schwerin	60.9	20.3	19.8	20.4	3.1	1.0	1,485	41	13
Tilsit	58.5	18.2	16.5	16.9	3.5	1.1	1,712	34	10
Trier	81.8	22.3	16.4	16.7	4.4	1.2	2,214	37	8
Ulm	68.6	20.3	19.7	20.0	3.5	1.1	2,123	33	9
Waldenburg (i.S.)	64.1	21.6	21.0		3.1	1.0	1,357	46	15
Wanne-Eickel	86.7	27.1	22.1	22.2	3.9	1.2	a	a	a
Wattenscheid	61.4	19.1	16.2	16.5	3.6	1.2	1,232	47	12
Weimar	62.3	17.8	16.1	16.7	3.9	1.1	907	62	16
Wismar	34.5	11.1	10.1	a	3.4	1.1	1,100	31	9
Witten	73.5	23.8	20.6	20.9	3.6	1.2	2,590	28	8
Worms	49.7	15.9	14.6	14.7	3.4	1.1	1,539	32	10
Zwickau	84.0	28.9	26.9	27.9	3.1	1.1	1,754	47	15

a. Information not available.

CONFIDENTIAL

GERMANY
HOUSING SHORTAGE
BY
ADMINISTRATIVE REGIONS

EXCESS OF HOUSEHOLDS OVER DWELLINGS-1939



- 0-5%
- 6-10%
- 11-15%
- 16-20%
- 21% or over
- No Data

1. HAMBURG
2. BREMEN
3. LIPPE
4. SCHAUMBURG-LIPPE
5. BRAUNSCHWEIG
6. ANHALT
7. SIGMARINGEN

CHART – SCALE OMITTED

NO. 2689
6 OCTOBER 1943

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II. HOUSING UNDER THE IMPACT OF WAR (EXCLUDING BOMB DAMAGE)

Although the construction industry in the Reich had been geared to a war economy long before the outbreak of war, actual war conditions caused considerable dislocation in the supply and demand of living quarters. The shift of labor from small towns and rural areas to war-production centers swelled the demand for housing in these areas. At the same time numerous dwellings were diverted for use by the military or for non-residential purposes.

The withdrawal of large numbers of men into the armed forces released some housing space for use by civilians, but the released space primarily decreased the number of persons per room and at best created vacant rooms rather than vacant dwellings. Moreover, the resulting vacancies were distributed throughout the Reich, while the housing shortage was concentrated in a few critical areas.

During the early months of the war there was considerable building activity, effort being directed primarily toward the completion of construction already begun. Soon, however, the shortage of building workers began to be felt. According to German sources, between September 1939 and April 1940 one-fourth of all building workers were drafted into the armed services. A similar proportion of the workers in the building trade were drawn away to other industries. By mid 1940, the number of building workers available for

construction work was 1,000,000, or half as many as in the preceding year.

The severity of the winter of 1939-40 added to the difficulty of transporting and distributing building material and of completing buildings which were under construction. There was also a scarcity of construction machinery, most of which was requisitioned for military purposes.

On 16 February 1940, the Reich's General Commissioner for the Building Industry, Dr. Todt, issued a decree prohibiting all new construction for private use. Rigid controls were set up for regulating the use of building material, equipment and labor. The following categories were permitted:

(1) Construction projects of military character.

(2) Repair and building costing less than 500 Reichsmarks.

(3) Projects connected with industrial plants and factories of synthetic material, particularly gasoline and rubber.

During 1940, about 115,000 new dwellings were completed including 50,000 dwellings for workers in war-industry areas. About 40 percent of the new construction was in cities of over 100,000 population. In the latter part of 1940, restrictions upon building activity were somewhat relaxed. At that time, the Germans were so confident of impending victory that they turned their attention to post-war plans.

A grandiose housing program was prepared, calling for the construction of 3,000,000 dwellings during the first decade after the war and an additional 6,000,000 units during the subsequent decade.

The post-war housing plan aimed at consoling the German population with hopes for the future and paved the way for drastic measures regarding the present utilization of available housing.

During 1941, further restrictions were imposed on residential construction. Building activity was strictly limited to areas of war activity, particularly in the east, and to workers in essential industries. Housing associations urged their constituents to improve and expand existing housing instead of undertaking new construction. Fraternal organizations collected funds from their members for the financing of dwellings to be built after the war.

In 1942, all previous exceptions to building restrictions were cancelled. Attention was concentrated on means other than new construction to meet the growing housing shortage. Special decrees (March 1942) provided for the expanded use of available structures by the conversion of some commercial structures into dwellings, by the subdivision of large underoccupied dwellings, and by effecting repairs of old buildings. Reconstruction and rehabilitation involving a minimum of building material and labor were exempted

from general building restrictions. After completing dwellings in process of construction, the only type of new construction permitted was the building of barracks for foreign and German workers, and later, for air-raid victims.

The entire building industry was reorganized in June 1942. The distribution of cement, for example, became centralized and building activity, where permitted, became standardized. The use of metal for roofing and similar construction work was prohibited. Prefabricated wood panels came into extensive use. Temporary construction was encouraged and required standards of construction were relaxed. Such features as double windows, trimmings, paneling, tiling, and the like were prohibited.

The total number of new dwelling units completed during 1942-43 was about 60,000 compared with 125,000 in 1941 and 115,000 in 1940. Since the beginning of the war some 300,000 new dwellings have been built in the Reich.

The dislocation of housing resulting directly from bomb damage and the German methods of rehousing the bombed-out will be discussed in the subsequent section.

III. BOMB DAMAGE TO HOUSING

A. General

The major problems created by bomb damage to housing are the needed repair of minor damage and the rehousing of those whose homes have been rendered uninhabitable. Additional

strain is imposed on the enemy's economic resources by the draining away of skilled labor and scarce material needed for the repair and reconstruction of repairable buildings, for the construction of emergency housing, and for the replacement of household goods. Energy is diverted into the process of relocating and rehousing persons made homeless.

Through October 1943 the repair of minor housing damage (not including the repair of factories and industrial structures) has required some 276,000,000 man-hours of work. The process of rehousing through evacuation involves a strain on transportation and creates congestion in the areas of reception.

In general, all evidence indicates that as far as shelter is concerned, the German authorities have set up a fairly effective scheme for rehousing raid victims. The four main components of that scheme are: evacuation, requisitioning of vacated habitable dwellings, new emergency housing, and billeting. Some of the bombed cities may actually have less crowding now than prior to the bombing attacks, as a result of extensive evacuation. It is very likely, however, that, with the increased volume of evacuation, the congestion created in reception areas will present an increasingly serious housing problem, particularly as the reservoir of spare housing approaches exhaustion.

It is obvious, moreover, that mere shelter is no substitute

for normal housing and that the adverse effect of the loss of home and personal belongings is not offset by emergency rehousing. Furthermore, the present policy of evacuation and billeting involves the separation of members of the family. In fact, the disorganization of normal family living and community organization, bringing with it excessive absenteeism and reduced efficiency, may yet prove the most serious effect of the air offensive against the Reich.

While the effect on morale and resistance is hard to measure, a substantial body of dependable information is now available regarding the scope and nature of damage to German housing caused by air attacks. The information is obtained primarily from reconnaissance photographs of bombed areas, interpreted in the light of the British experience. Statistical techniques have been developed for estimating damage where no photographic evidence is available; they are based upon the tonnage and nature of bombs dropped.

B. Types of Damage

Three categories of housing damage are distinguished: residential structures completely demolished, those sustaining such major structural damage as is unlikely to be repaired during the war, and those suffering minor damage which can be readily repaired. The first two categories together constitute the total number of dwellings rendered uninhabitable for the duration of the war. The category of minor damage includes

only those cases which require some structural repair; it does not include cases of shattered windows and similar slight damages.

C. Factors Determining Severity of Damage

Barring weather conditions or other disturbing circumstances, the factors most directly related to the volume of housing destruction are the tonnage of bombs dropped on the target area, the kind of bombs, the density of residential structures, and the predominant type of construction material.

On the average, for the German experience to date, a ton of bombs causes damage to 20 dwellings as follows:

3 dwellings demolished

2 dwellings suffering major damage

15 dwellings sustaining minor damage

The British experience for the twelve-month period of intensive bombing by the Luftwaffe (August 1940 through July 1941) showed a similar rate of housing damage. The number of dwellings completely demolished was 3 per ton of bombs. Since the method of estimating damage to Germany is based in part upon British experience, the similarity in rates is not surprising.

Next to tonnage dropped, the kind of bombs dropped is an important factor. In general, a ton of incendiary bombs will cause more extensive housing damage of a serious nature than do high explosive bombs, though the latter will

result in more intensive destruction of structures affected. High explosives, through vibration and suction, result also in a larger number of cases of minor damage such as broken windows, doors and roofs.

Where photographic cover is not available, bomb damage estimates are generally based on the concept of "vulnerable area" - which rests on evidence that a ton of bombs dropped will devastate a fixed area. It follows that damage per ton will vary directly with the density of dwellings, i.e. the number of dwellings per unit of area.

Wooden structures are more vulnerable to air attack than those of masonry construction. The central sections of a city, which are usually of high density and which include many old and wooden buildings, suffer greater damage than new residential sections.

The relative effectiveness of different types of bombs depends upon the nature of the area attacked. An example of such variation is revealed in the observed results of air attacks on the Ruhr cities of Duisburg and Barmen (Wuppertal). In Duisburg the residential zone is relatively new and well spaced, while in Barmen the residential section is old and congested. In the former, incendiary bombs caused less damage than high explosives, while in the latter incendiaries caused 8 times as much damage as did the high explosive bombs. In both cities, the center of the town is old and congested. In

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both cities the damage in the center caused by incendiary bombs was 4 times as large as that caused by high explosives.

Quantitative measurements in this field are lacking, but no better testimony to the effect on the living conditions of the German people is available than an article which was recently published in "Das Schwarze Korps" (1 July 1943):

> "The bombing war has as its aim the reduction of housing facilities for the civilian population. Thus, the bombing war is also primarily a blockade of housing facilities. . . The inhabitants of whole city areas, yes, even of entire cities, are left without a roof over their heads and deprivation of shelter is a fate which is no easier for civilized man to endure than hunger. A human being who has no roof over his head is as much put out of the running by enemy attack as if he were starving to death. To paralyze the whole population of entire cities and areas of the country in the vicinity of industrial centers -- that, for the enemy, is the real purpose of the blockade of housing facilities through aerial terror."

D. The Damage Account

1. Germany as a Whole. During the 20-month period ending 1 November 1943, the RAF[1] subjected 43 German cities to 210 night raids. These cities had, before the war, a population of 17,400,000; 5,200,000 dwellings; and 5,800,000 households.

As a result of bombing 760,000 dwellings, or 15 percent of the total, were rendered uninhabitable, including 467,000 demolished dwellings and 293,000 dwellings sustaining major structural damage. The estimated number of persons rendered homeless was 2,570,000[2].

In addition, minor damage was inflicted upon 2,297,000 dwellings or 44 percent of the total. Thus 3,063,000 dwellings or 59 percent of all dwellings in the bombed cities sustained some damage. The number of persons whose dwellings were damaged was roughly 10,300,000.

2. The Ruhr. In the industrial cities of the Ruhr, which were subjected to particularly intensive bombing, the damage to housing was even greater. One-fifth of the dwellings were

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1. Since they are precision raids, and probably cause relatively little housing damage, USAAF, Russian Air Force, and RAF day raids are not considered in the present estimates.

2. British experience indicates that the number of structures showing visible damage on reconnaissance photos is equivalent to the number rendered uninhabitable.

rendered uninhabitable and nearly one-half of all dwellings sustained minor damage. In all, more than two-thirds of the dwellings (68.7 percent) suffered some damage. The figures are shown in Table 2 on the following page.

Damage to the Ruhr cities was relatively heaviest in the period 1 April 1943 to 4 July 1943. During that period 47 percent of all dwellings rendered uninhabitable in the Reich were located in the Ruhr. The corresponding figures for the earlier and succeeding period respectively are 24 percent and 27 percent.

E. The Trend in Damage

The damage inflicted was not spaced evenly over the period considered. With increased intensity of air attacks resulting housing damage grew heavier. This is revealed in a comparison of the cumulative totals for three periods as shown in Table 2. The average number of dwellings rendered uninhabitable increased from 11,600 per month for the first period, to 66,700 during the second period, to 103,613 per month during the recent period ending 1 November 1943.

F. Regional Variation

The relative volume of housing damage in the various administrative regions of the Reich is shown in Map 2 on page 27. The percentages of damage shown in this map are based on the number of dwellings rendered uninhabitable

Table 2. LOMB DAMAGE TO GERMAN HOUSING

	From 1 March 1942 to 31 March 1943		From 1 March 1942 to 4 July 1943		From 1 March 1942 to 1 Nov. 1943	
A All Bombed Cities	Number	Percent	Number	Percent	Number	Percent
Dwellings demolished	84,700	2.1	218,000	4.4	467,047	9.0
Dwellings suffering major damage	66,500	1.7	135,300	2.8	298,603	5.8
Total dwellings rendered uninhabitable	151,200	3.8	350,300	7.2	765,650	14.8
Persons rendered homeless	539,000	3.9	1,173,505	7.5	2,572,584	14.8
Dwellings needing minor repairs	653,900	16.4	1,069,370	21.8	2,296,950	44.4
All destroyed or damaged dwellings	805,100	20.2	1,419,670	29.0	3,062,600	59.2
Persons whose dwellings were destroyed or damaged	2,825,901	20.6	4,755,895	30.6	10,290,336	59.2
B. Ruhr Cities Only	Number	Percent	Number	Percent	Number	Percent
Dwellings demolished	20,900	3.6	103,600	11.0	129,406	12.8
Dwellings suffering major damage	17,000	3.0	60,200	6.9	76,000	7.5
Total dwellings rendered uninhabitable	37,900	6.6	163,800	17.4	205,406	20.3
Persons rendered homeless	145,000	6.6	610,975	17.4	764,110	20.4
Dwellings needing minor repairs	161,400	28.1	394,200	41.8	469,062	48.4
All destroyed or damaged dwellings	199,300	34.7	558,000	59.2	694,468	68.7
Persons whose dwellings were destroyed or damaged	759,333	34.7	2,081,340	59.4	2,583,421	68.8

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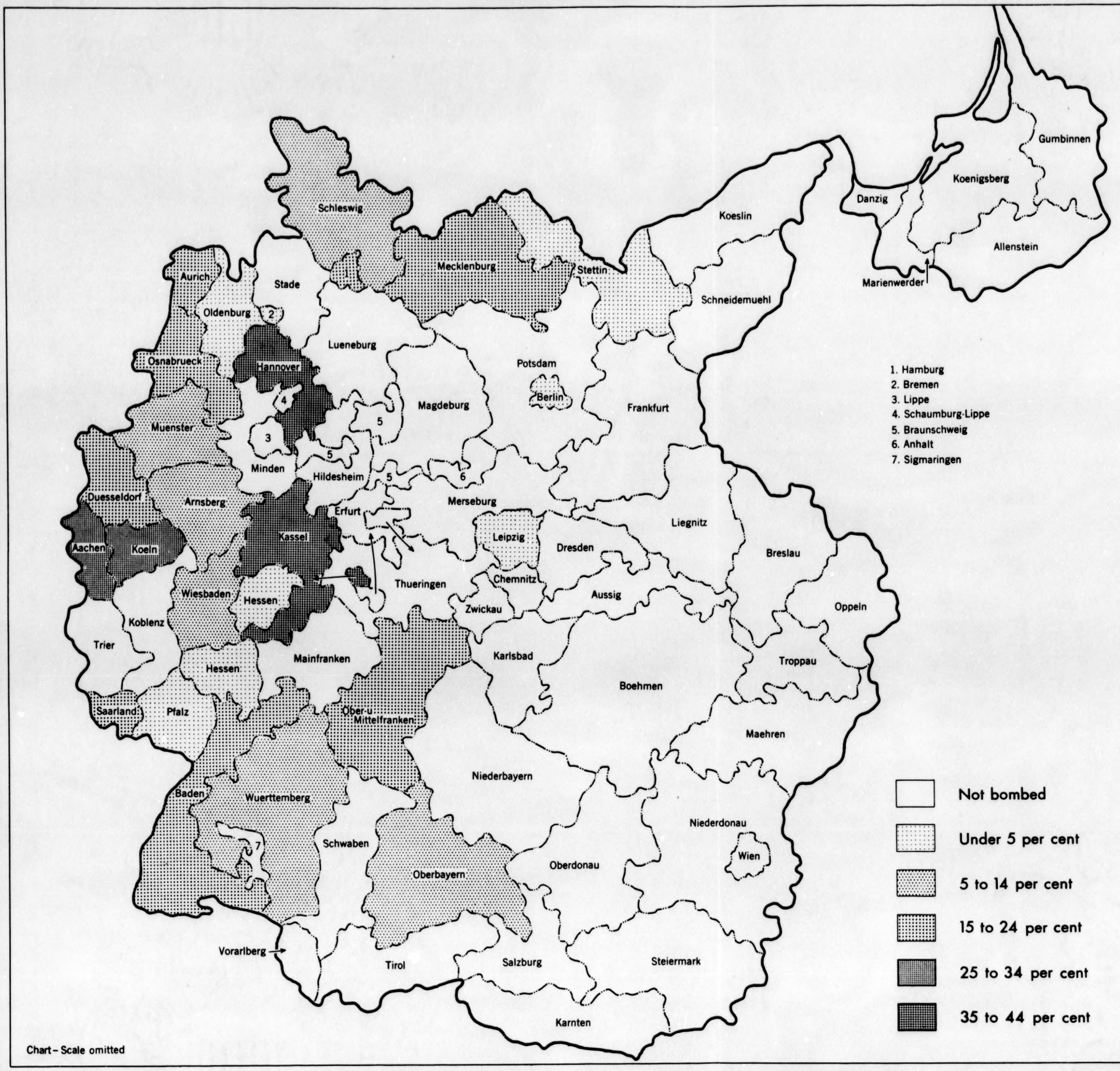

Chart – Scale omitted

GERMANY: BOMB DAMAGE TO HOUSING

PERCENTAGE OF DWELLINGS RENDERED UNINHABITABLE BY R.A.F. BOMBING (TO NOVEMBER 1, 1943), BASED ON CITIES OF OVER 50,000 POPULATION IN THE VARIOUS ADMINISTRATIVE REGIONS.

Reliability Code: 2A–00–2

NO. 2786
3 NOVEMBER 1943

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LITHOGRAPHED IN THE REPRODUCTION BRANCH, OSS

in each region (to 1 November 1943) divided by the total number of dwellings in cities of over 50,000 population within the region. It will be seen that the regions most severely affected were those of Kassel and Hannover. The smallest percentage of housing damage was in the region of Leipzig. Nearly all of the affected regions are in the outer western zone of the Reich (the city of Leipzig, recently bombed, is a notable exception).

3. The Meaning of Housing Damage

In the cities subjected to bombing, one-seventh of the families were rendered homeless and more than one-half of the families had some damage done to their homes. Such loss would result in a serious housing dislocation, even in communities where the normal housing supply is quite adequate. Actually, the damage was inflicted to cities whose housing situation was tight even before the war. As shown in Table 1-A, these cities had between 111 and 113 households for each 100 dwellings in 1939. Even if it is assumed that the increased concentration of labor in these industrial centers was counterbalanced by the large number of persons drawn into the armed forces, a housing deficit of some 12 percent prior to the bombing attacks remained. After 20 months of bombing attacks and assuming no evacuation, about one-half of the households in all bombed cities and two-thirds of those in the Ruhr would have been compelled to share living quarters.

An indication of the effect of housing damage on the labor supply in bombed cities can be gathered from the man-hours involved in the repair of minor damage. It has been estimated by the British that the average case of minor structural damage involves about 120 man-hours of repair work. On that basis, the repair of minor damage suffered by 2,000,000 to 3,000,000 dwellings in the Reich has required (to 1 December 1943) 276,000,000 man-hours of work.

In terms of financial loss, it is reasonable to estimate that the average case of minor damage involves a repair cost of approximately 500 Reichsmarks (this being the amount tenants are authorized to spend and to collect in compensation without special investigation). The estimated cost of minor repair is thus 1,150,000,000 marks. (The cost of reconstruction of homes rendered uninhabitable is estimated at a minimum of 3,830,000,000 Reichsmarks. The total value of all housing damage to date is thus estimated at 5,000,000,000 Reichsmarks.)

The measures taken by the Reich to rehouse those whose homes have been rendered uninhabitable will be presented in a subsequent section. It should be pointed out, however, that the loss of one's home and belongings is hardly compensated for simply by rehousing, even if the substitute were equal in quality to the original living quarters. The intangible effect of the transition from standard-quality housing to mere shelter is hard to evaluate. Nevertheless, the psychological effect of the loss of cherished property, the enforced changes in habits of living, the breaking down of the unity and the

privacy of the family and the social effect of community disorganization undoubtedly have a marked effect on the attitude and efficiency of the persons affected. Submerged as such effects might be under a system of total control, their cumulative effect is apt to contribute to a gradual deterioration of morale.

IV. THE REHOUSING OF BOMBED-OUT PERSONS

A. General

There are two major problems in the process of housing those who were made homeless by air raids: providing emergency lodging and feeding immediately after the raid, and securing more or less permanent living quarters for air-raid victims.

A fairly definite scheme has been worked out in the Reich for solving the first problem. Reception centers (Sammelstellen) have been established in cities located in danger areas. The stations include simple furniture and feeding facilities. The personnel in the Center usually includes representatives of the Billeting Office (Quartieramt), food office, and the Nazi Welfare Agency.

All persons made homeless by air raids, even those who are able to secure lodging with friends or neighbors, are required to report to these reception centers. For the first three days after the raid, food and lodging are provided without charge.

The homeless are given certificates (Quartierscheine) entitling them to lodging and to new ration cards for food and for the purchase of replacements for lost household articles.

The process of securing "permanent" dwellings for those who lost their homes is a more difficult task. The major methods of solution are new construction billeting in occupied homes, conversion of non-dwelling into dwelling space, requisitioning of vacated dwellings, and evacuation.

Various phases of the rehousing process are discussed more fully in the Appendix, but in order to give a rounded picture of the housing situation in the main body of the text, the following sections summarize the material.

B. New Construction

Workers who lost their homes in air raids, particularly those whose families have been evacuated, are often housed in barracks. These are usually located near industrial plants and provide both lodging and feeding so the workers are freed from household duties.

The buildings are sometimes converted residential structures but mostly newly constructed dormitories built of prefabricated material. The latter type of emergency housing (Notwohnungen) has been built at the outskirts of several bombed cities. They are furnished simply and include community dining facilities[1].

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1. In addition, there are in the Reich some 20,000 worker camps accommodating about 1,000,000 persons. These pre-date the bombing offensive; nonetheless, many of them may be used for the accommodation of workers who lost their homes in air raids.

C. Evacuation

1. Policy. Even before the RAF attack began, a system of precautionary evacuation was inaugurated. This was limited primarily to children of age 6 to 14, and was effected by the Extended Child Evacuation Organization (KLV)[1] under the auspices of the National Socialist Welfare Organization (NSV). Children of age 3 - 9 were placed with families while those of 10 - 13 were housed in camps under the supervision of Hitler Youth leaders and teachers. Normally, the evacuation was for a period of 6 or 9 months subject to further extension. It is reported that during the two-year period ending October 1942 about 1,200,000 children were evacuated.

As far as the evacuation of adults is concerned, there is some indication that in the early period of bombing, German authorities were anxious to prevent the spread of bombed-out persons, fearing an adverse effect on public morale. (This was consistent with their "escapist" attitude revealed in the early attempts at rapid boarding up of bombed structures to keep the damage from public view). Bonuses and special ration cards were issued to air-raid victims as inducements to remain where they were.

With the intensification of air raids and their extension to large areas of the Reich, the scope of evacuation

1. Before the war, the Child Evacuation Organization was engaged in arranging summer vacations for children of low-income families.

expanded greatly, not only as a matter of precaution but also as a practical program of relieving the growing shortage of housing and feeding facilities of bombed cities. A scheme was then developed by which evacuees from any bombed city were sent to a previously designated reception area, usually at some distance from the affected community. In recent months, the scheme has been modified and some evacuees, particularly those of a precautionary nature, are generally sent to rural areas within their respective districts.

The present German policy in raided areas is to encourage the evacuation of all persons not subject to the Labor Mobilization Act[1] and to retain all workers and those whose presence in the city is essential.

The intensity of the campaign in the German press to persuade parents to have their children evacuated is evidence that the population is slow in following this policy. Nevertheless, indications are that the evacuation of children and non-working adults from bombed cities is proceeding apace. There are reports that all schools have been evacuated from such cities.

2. Estimate of Number of Evacuees. The estimated volume of evacuation for six groups of potential evacuees (as of October 1943) is discussed in detail in the Appendix.

1. See Appendix, Part B for definition.

The cities in bombed areas (including cities not bombed to date) include a population of 19,400,000 of whom 7,600,000 were non-working persons. According to the present estimate, 4,500,000 persons, or six-tenths of the potential evacuees, were actually evacuated. (See Table 5 in Appendix, Part B). Of the total population of the cities under consideration, 23.6 percent were thus evacuated.

3. Evacuation and Housing Destruction. As was shown previously, some 2,500,000 persons were rendered homeless by air attacks. In the light of the above estimates, it may be assumed that about one-fourth (more exactly 23.6 percent) of the bombed-out, or 590,000 persons, were evacuated. But since the total evacuation from the bombed cities was approximately twice as large as the number made homeless, the bombed cities appear to have a considerable reservoir of vacant housing. Of course the majority of precautionary evacuees were children and the amount of housing space actually released was therefore in many instances limited to only a fraction of a room. Nevertheless, the authorities were able to utilize many of the rooms left by precautionary evacuees for the housing of bombed-out persons and families. In other words, the scheme of evacuation solved the housing problems of the majority of air-raid victims. Others were housed in homes of friends and relatives and in "new" dwellings resulting from conversions and sub-divisions.

D. Expanded Use of Available Housing Space

A series of German decrees (published in the Reichsgesetzblatt of 8 March 1943) provides for the increase of housing space in areas of housing emergency, including both danger zones as well as areas of reception[1]. With the increased area subjected to bombing and the right of local authorities in any region to declare it an area of housing emergency, the decrees apply at present to practically the whole Reich.

The housing decrees provides that:

(1) All structures originally designed for residential purposes and later converted to other uses must be reconverted for use as dwellings.

(2) Retail and wholesale stores, restaurants, hotels, craft shops, and similar establishments, which are not essential to the war, must be closed down to relieve the shortage of labor, and, where possible, such establishments are to be converted for residential use, provided such conversion can be accomplished with a minimum of building material and labor.

(3) Large dwellings not fully occupied are to be subdivided into smaller units for use by additional families.

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1. Certain limitations are given in Part B of the Appendix.

(4) Family dwellings occupied by single persons are either to be shared or, in some instances, to be requisitioned for use by a family, the original occupant to be housed elsewhere.

(5) Dwellings left vacant for whatever reason beyond a specified period are to be requisitioned.

(6) Occupancy of more than one dwelling by a family is outlawed and such extra dwellings (such as country homes, etc.) are to be released for occupancy by other families.

(7) In no case is the number of rooms (excluding the kitchen) to exceed the number of persons in the households, 2 pre-school age children to count as one person.

It is estimated that these provisions have resulted in the release of housing space equivalent to almost 1,500,000 rooms throughout the Reich. (See Appendix, Part C, and Table 3 on the following page).

V. REPAIR OF DAMAGED DWELLINGS

A. General

Shortages of material and labor have made it necessary to limit repair to damage which is easily repaired. To determine priorities, all repair orders have to be cleared through a central War Damage Office in each city. The office, which acts as agent for the Reich Commissioner for Building

Table 3. POTENTIAL ADDITIONAL HOUSING SPACE AVAILABLE IN THE OLD REICH

		Old Reich	Bombed Cities[a]	Other Cities 50,000 and over in Bombed Areas	Outside of Evacuated Areas
A.	Dwellings available, Total	126,400	29,300	4,000	93,100
	1. by subdivision of dwellings having 7 or more rooms	30,600	6,500	1,300	22,800
	2. by expropriation of dwellings occupied by single-person households	20,800	4,800	700	15,300
	3. by conversion of closed-down commercial establishments	75,000	18,000	2,000	55,000
B.	Rooms available (from A.)	304,200	70,000	9,900	224,300
C.	Additional rooms for billeting in private homes	1,117,900	254,900	39,200	823,800
D.	Total rooms available (B + C)	1,422,100	324,900	49,100	1,048,100

a. All cities bombed by RAF English-based night raiders in the period 1 January 1942 to 1 October 1943.

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Notes to Table 3

A-1 Estimated at 5 percent of the dwellings having 7 or more rooms. Total dwellings with 7 or more rooms in total Old Reich 613,109; in bombed cities 131,173; in other cities of 50,000 or more inhabitants in bombed areas 25,100.

A-2 Estimated at one percent of all single-person households listed in the 1939 Census of Population: 2,075,238 in the Old Reich; 476,408 in the bombed cities; 70,700 in other cities of 50,000 or more inhabitants in bombed areas.

A-3 Based on German estimates of the expected results of the closing down campaign.

B Estimated on the basis of three rooms per dwelling for all converted and expropriated dwellings, and of two rooms for each converted business establishment.

C Estimated at two percent of all rooms in 4-6 room dwellings and five percent of all rooms in dwellings of 7 or more rooms (excluding those which were subdivided into smaller dwellings). Total number of rooms in dwellings of 7 or more rooms estimated at 4,726,526 in the total Old Reich, 1,011,866 in bombed cities, and 191,153 in other cities of 50,000 or more inhabitants in bombed areas. Total number rooms in 4-6 room dwellings estimated at 44,071,281 in the total Old Reich, 10,213,792 in the bombed cities, and 1,832,981 in the other cities of 50,000 or more inhabitants in bombed areas.

(Speer), distributes the requests for repair to the building firms. Since January 1943 all records of building repairs have been cleared through the local Building Police instead of the Labor Office.

The most serious problem is the shortage of skilled building workers, particularly roofers, tinners and glaziers. There is also a marked scarcity of building materials, roofing tiles, metal, and cement which are subject to strict rules of rationing and are issued only on presentation of a certificate of need. Although there is some evidence that stocks of repair material were built up after the air attacks began, there is definite indication of a shortage of some critical material such as window glass, nails, tiles, etc.

B. Factors Determining Priorities

In deciding upon priorities for repair material and labor, preference is given to dwellings which require a minimum of repair and which house a larger number of persons. Damage to roofs, which is the most frequent type of damage resulting from air attacks, is given primary attention. Outside doors are repaired at once, inside doors only later. Similarly, damaged windows of bedrooms and kitchens are given priority over windows in other rooms.

Building-trade organizations have issued detailed instructions to their members regarding repair of air-raid damage. The general policy is to give preference to such repair as

would result in a maximum of habitable housing. In the repair of civilian property, damaged dwellings have priority over other structures. The first task is usually to make the roof rainproof (See Appendix, Part D). In many instances this means erecting an emergency roof.

Window panes are replaced first in houses not evacuated, and in the case of double windows only the outer ones are repaired. Cracks in interior walls of rooms are filled in but more serious damage is left unrepaired. Outside doors are repaired before inside doors. All other work of redecoration and repair is permitted only after the more essential repairs are completed.

In heavy raids the damage to windows is so extensive that the public has been instructed to effect temporary repairs, using cardboard in place of glass, at least in rooms which are not extensively used. In living rooms and kitchens, however, immediate replacement of window panes is urged so as not to increase the use of artificial light. In many instances, tenants are required to take the window frames to central shops for repair and glazing. Where possible, panes are to be removed from windows in unused rooms for the replacement of broken panes in frequently used rooms. Detailed instructions for makeshift repair have been distributed. Cooperation among neighbors in effective temporary repair is urged.

The general policy is to effect repair as needed without

depending on the initiative of the persons affected. However, there is evidence of extensive evasion of regulation; those who are willing to pay the price apparently have repairs done out of turn. Compensation is paid for only repair which is classified as necessary by the office in charge of Emergency Measures. (See Appendix, Part D, for landlord-tenant relations).

The population is urged to effect repair at great speed so as to restore the dwellings and housing facilities to minimum acceptable standards.

In some instances, however, repair is very slow. This was particularly true of earlier raids on large cities. There is a report that after the heavy raid on Berlin in March 1943, repair service had bogged down and was near the breaking point. Some three months after the raid, the clearance of furniture strewn about damaged houses had not been completed.

C. Availability of Labor

Repair is generally done by local labor, in accordance with procedures prescribed in the Emergency Repair program. Householders are obliged to form a self-help or community-help organization for the removal of debris and for minor repairs.

Local labor includes both volunteers and members of the building trade. The latter are placed at the disposal of the Emergency Repair officers by their own professional associations. In addition to these two groups which serve the whole community auxiliary squads of workers have been organized in

individual factories and establishments in areas exposed to air attacks. These include unskilled workers, used for clearance, salvage, and preparatory repair work, as well as building workers who are not fully employed on building work. About one-tenth of the male personnel of all factories are assigned to the auxiliary squads primarily for the repair of damage to their own factories and industrial structures. The industries affected are expected to pay the workers for clearance up to 8 days and for repair work up to the equivalent of 14 days. In plants doing important war work, the employees are released for such work for only 3 days.

Mobile labor is provided from the pool of skilled and unskilled building workers registered in any locality for services in "flying squads" to be moved to any community under attack. Prison labor and foreign workers are used extensively in repair work. Skilled building workers from all parts of the Reich, as well as from occupied and neutral countries, have been brought to bombed cities to facilitate the repair program. Holland alone provided 75,000 building workers.

Repair of communications, gasworks, electric power plants, and other key enterprises are performed by the Technical Emergency Services now merged in the ARP Police.

D. Availability of Building Materials

The supply of building materials does not constitute so much of a problem as the supply of labor. However, strict measures of economy have been imposed. Material is received

through the Emergency Repair Depot which, in turn, releases it to building associations in accordance with a system of priorities. Shortages exist in roofing tiles, iron and steel, cement, all of which are strictly rationed. It was reported in March 1943 that the German plate-and window-glass industry had built up large stocks in order to be able to meet emergencies following air raids, and that in order to economize in raw materials, the collection of broken glass after raids had been organized. Again, the chief difficulty in window repair is not the lack of glass but the lack of glaziers.

Wood should be plentiful in Germany, but due to labor and transportation difficulties it might not be available when and where it is most needed. Consequently households in cities most likely to be bombed were urged to have a supply of lumber handy. There seems to have been a campaign for the dismantling of wooden partitions in lofts, in which people were urged to keep the wood and nails thus salvaged in a safe spot to be used only for repairing air raid damage[1]. The communities too had emergency supplies of repair material, which were given free to air-raid victims on presentation of a certificate issued by the local commissioner (Kreiskommissar). There were rumors that the Germans added to their supply of building materials by

1. Municipal authorities are urged to prevent the misuse of such building supplies and it has been stated that "householders who make improper use of boards and nails cannot expect to have their houses repaired in the event of air-raid damage".

taking door and window casings and stairways from houses that were demolished as a result of the evacuation of the coastal cities of Holland. The German authorities deny these claims and maintain that such material was used for housing construction in Holland.

E. Cost of Repair

The cost of repair of dwellings suffering minor damage can be estimated in terms of labor, building material, and money.

1. Labor. It is estimated that the repair of minor damage caused by air raids requires approximately 15 days of work of one person or 120 man-hours. This estimate by the British Ministry of Home Security is substantiated by a recent German decree that persons staying away from work for the purpose of repairing their homes from bomb damage are to be paid up to a period of 14 days. The total for the 43 raided cities (as of 1 November 1943) is 276,000,000 man-hours. This is equivalent to a loss in 21 months of 4.3 days of work of the total working population of the raided cities[1].

2. Building Material. From the records of building material allotted for minor repair it appears that such requirements are

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1. Total population 16,000,000, working population 8,000,000; assuming an 8-hour day, 276,000,000 man-hours is equivalent to 4.3 days of work by the working population of those cities.

equivalent to about 5 percent of the material required in the construction of a complete dwelling. Thus, the material devoted to the repair of dwellings suffering minor damage would have been sufficient to construct over 100,000 new dwellings. Again, this does not include the buildings demolished or suffering major damage.

3. Money. It is estimated that the average cost of minor repair was about 500 RM per dwelling. The total cost of minor repair was thus approximately $242,375,000.

4. Compensation for Housing Damage. The rules and regulations regarding compensation for housing damage are set forth in a Decree issued 30 November 1940 and in a series of subsequent modifications of the original order which was rather liberal in character. All claims are subject to the approval of local authorities and claims for amounts exceeding 10,000 RM require the approval of higher authorities. Small claims for amounts up to 1,000 RM may be granted in advance of formal approval subject to later review.

The amount granted must be used only for essential repair. Compensation for repair of damage which cannot be completed for the duration is to be paid after the war. In heavily raided areas, all emergency repairs of damaged windows and roofs are effected under the auspices of municipal authorities and no compensation is granted for such damage.

From all indications the process of securing compensation

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for anything but emergency repair of a minor nature involves numerous difficulties and red tape. Authorities are urged to consider the possible inflationary effects of immediate payments of large sums and the Government's need for all funds for the prosecution of the war.

APPENDIX

A. New Construction

To same time, materials, and labor, new construction as a solution to the problem of sheltering bombing victims has been avoided as much as possible. Certainly no permanent dwellings have been erected in the bombed areas, and very few in the centers of evacuation. However, there have been reports of temporary wooden barracks and of hutted camps being hastily assembled to accommodate bombed-out families both in the bombed city itself and in the evacuation center. The construction of all pre-war types of civilian houses has been abandoned in favor of building standardized barracks affording shelter to bombed-out families. In many cases the temporary barracks are used as offices by government officials, freeing the permanent structures for use as dwellings. In Cologne, 112 official premises were converted into 365 private homes.

Prefabricated barracks are being imported from Sweden, Finland, Norway, and Switzerland.

A Swiss firm was reported in December 1942 to have contracted to supply to the Germans enough wooden huts to house 500 persons. In Vorkaus, Finland, a factory normally producing 2,000 prefabricated houses a year is working at full capacity making prefabricated wooden barracks for the German army. It is doubtful whether many of these were diverted to civilian use.

in view of strong competition between the armed forces and civilian consumers. A report received from Bern on 26 August 1943, states that it is no longer possible to build sufficient barracks for the civilian population as the demands of the army are too great.

In June 1943, several reports were received here of the building of a new type of two-story dwelling house. The reports differ on details, but agree that the dwellings are erected from prefabricated wooden sections on stone foundations, and are completed, furnished, and ready for occupancy within a period of six weeks. About 700 of these dwellings have been erected in the Brunswick and South Hannover regions, and five colonies of such dwellings were reported under construction on the outskirts of Hamburg in May. The fact that the Germans are diverting precious manpower and materials to the construction of new dwellings indicates that the intensified air attacks are rendering other means of sheltering victims increasingly inadequate, either from the physical point of view or the morale aspect. The new dwellings are of a standard size - a kitchen-living room, two bedrooms, and a lavatory - are heated by means of two stoves and a fireplace, and are insulated either with glass wool or plywood boards. According to the report from Hamburg, they were constructed by foreign labor, both men and women, from eastern Europe.

Increased construction is foreshadowed by a new "German Housing Assistance Scheme" announced by Dr. Ley; the scheme is described as follows in official German broadcasts to Europe on October 9 and 10, 1943:

> "Despite all the difficulties inherent in the material and labor situation, the German housing assistance scheme is intended to create the largest possible number of emergency quarters for the population afflicted by the bomb terror."

These homes, consisting of two rooms - a living room-kitchen and a bedroom - will be built in the country, and will each have a small garden. This, Dr. Ley declared, would represent a happy combination between the idea of a small week-week-endhouse or a garden house for living purposes - so popular with the German people - and the war's requirement of the greatest safety from air attacks and economy of material and labor.

> "It goes without saying that these homes, of which it is hoped a great number will be built, will in many cases have to be considered only as an emergency solution, if compared with the former housing standards of the raid victims. After the war these emergency houses are to serve as week-end houses, and beyond that they afford the opportunity of approaching a great building program calmly and without haste.
>
> "The building of these houses is to be carried out on the basis of self-aid, neighborly aid and community aid - the main attention, however, must be paid to setting up houses which are mass-produced in the factories. The administration of the scheme is entrusted to the Hauptamter ."

An article appearing in Svenska Tagbladet, 14 October 1943 further elaborated on the new program of building bungalows.

Each bungalow has an area of 4 by 5 meters and can be erected in three days. The Germans expect to have 10,000 of these bungalows ready before winter.

Table 4 on the following page indicates housing construction in the Reich, 1919 - 1943.

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Table 4. HOUSING CONSTRUCTION IN THE REICH 1919-1943[a/b/]

Year	Total	Dwellings Added Through New Construction	Dwellings Added Through Conversion	Dwellings Demolished	Net Increase
1919	60,861	35,596	25,265	4,147	56,714
1920	108,307	75,923	32,379	5,215	103,092
1921	141,498	108,596	32,902	7,275	134,223
1922	154,970	124,273	30,697	8,355	146,615
1923	125,940	100,401	25,539	7,607	118,333
1924	115,376	94,807	20,569	8,874	106,502
1925	191,812	164,437	27,375	12,882	178,930
1926	220,529	199,084	21,445	14,736	205,793
1927	306,834	284,444	22,390	18,199	288,635
1928	330,442	306,825	23,617	20,680	309,762
1929	338,802	315,703	23,099	21,120	317,682
1930	330,260	307,933	22,327	19,289	310,971
1931	251,701	231,342	20,359	18,053	233,648
1932	159,121	131,160	27,961	17,856	141,265
1933	202,113	132,870	69,243	24,075	178,038
1934	319,439	190,257	129,182	35,444	283,995
1935	263,810	213,227	50,583	22,778	241,032
1936	332,370	282,466	49,904	21,880	310,490
1937	340,392	308,945	31,447	20,335	320,057
1938	305,526	276,276	29,250	20,257	285,269
1939	250,000	220,000	30,000	20,000	230,000
1940	145,000	115,000	30,000	20,000	125,000
1941	160,000	125,000	35,000	30,000	130,000
1942	160,000	60,000	100,000	100,000[c]	60,000
1943	254,000	100,000[d]	154,000	900,000[c]	-646,000

a. Including Saarbrücken since 1935.

b. Estimates beginning 1939.

c. Bomb damage 1942-43

d. Mostly temporary dwellings

Sources: Leistungen und Aufgaben in Deutschen Wohnungs-und Siedlungsbau, Walter Fey, Berlin, 1936, p.13

Vierteljahrshefte zur Statistik des Deutschen Reichs, 1938 and 1939, Heft II

B. Evacuation

1. Persons Evacuated. In the early days of bombing evacuation was voluntary and disorganized; now it has become highly organized and controlled, to the extent of evacuating special groups, sending special trains, designating reception centers for each threatened area, and requiring evacuation permits of those who wish to leave the raided areas. The authorities are urging all people who are not engaged in essential war work to leave the threatened areas.

The Labor Mobilization Decree of 27 January 1943 issued by Sauckel, gives a good clue to the meaning of the phrase "not engaged in essential war work." This decree ordered all men between the ages of 16 and 65 and all women between the ages of 17 and 45 to register at the local Labor Exchange. The exemptions were as follows: those already working at least 48 hours a week, those employing more than four employees, those employed full time in agriculture, civil servants, members of the Wehrmacht, police force, and the Reich Labor Service, doctors, dentists, pupils of secondary schools, ministers of religion, persons in the care of institutions and incapable of earning their own living, women with one or more children under school age, women with at least two children under 14 living in the same household with them, and expectant mothers. The closing down of non-essential business establishments which followed this decree directed all workers into essential war jobs. Thus it may be seen that the persons

to be evacuated from the threatened areas are (1) persons in institutions, (2) school children, (3) women with one or more children under school age, (4) women with two or more children under 14 living in the same household with them, (5) expectant mothers, (6) women over 45 years of age who are not working, and (7) men over 65 who are not working. All others may be assumed to be engaged in work essential to the war effort or in supplying essential services to the community and thus not permitted to leave.

By determining the number of persons in each of these seven groups, it is possible to estimate the approximate number of persons evacuated from the cities in the areas threatened by air-raids, allowing the highest proportion in the cities which were bombed in 1943, a smaller proportion in those which were bombed only in 1942, and an even smaller proportion in the cities of 50,000 or more inhabitants which are in the threatened areas but have not yet been bombed. (See Table 5, on the following page.) The total number of evacuees, based on these calculations, up through the first week of October 1943 has been approximately 4,500,000 - 4,100,000 from the cities bombed in 1943 (excluding persons in institutions).

2. Evacuation Administration. An elaborate scheme has been set up for controlling evacuation by designating certain Gaue as reception centers for each of the threatened

Table 5. ESTIMATED NUMBER OF EVACUEES FROM GERMAN CITIES

Population Classes	Cities bombed in 1943[1]		Cities bombed in 1942		Other cities in threatened areas		Total	
	Total persons	Evacuees	Total persons	Evacuees	Total persons	Evacuees	Total persons	Evacuees
A. Total Population	15,825,000	4,061,552	857,400	145,411	2,749,900	329,962	19,432,300	4,536,925
B. Categories subject to evacuation, total	6,203,140	4,061,552	334,644	145,411	1,072,028	329,962	7,609,812	4,536,925
1. Children under 14 years	3,402,375	2,551,781	184,341	92,171	591,229	221,711	4,177,945	2,865,663
2. Women with 1 or more children under school age	759,600	455,760	41,155	16,462	131,995	26,399	932,750	498,621
3. Women with 2 or more children under 14	491,896	295,138	25,203	10,081	79,589	15,918	596,688	321,137
4 Expectant mothers	267,443	176,512	14,490	6,376	46,473	15,336	328,406	198,224
5. Women over 45 not employed in war work	989,063	494,532	53,588	17,148	171,869	42,967	1,214,520	554,647
6. Men over 65 not employed in war work	292,763	87,829	15,867	3,173	50,873	7,631	359,503	98,633

1. Cities bombed in RAF night raids from English bases in the period 1 January to 8 October 1943.

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Notes to Table 5

B-1 Total number of persons estimated at 21.5 percent of the total population, based on distribution in the total Reich in the 1939 census; number evacuated, 75 percent in cities bombed in 1943, 50 percent in cities bombed only in 1942, and 37.5 percent in non-bombed cities in bombed areas.

-2 Total number of persons estimated at 4.8 percent of the total population, based on the 1939 distribution of children under school age in the total Reich; number evacuated, 60 percent in cities bombed in 1943, 40 percent in cities bombed only in 1942, and 20 percent in non-bombed cities in bombed areas.

-3 Total number of persons estimated at 9.3 percent of the total number of households, based on the percentage of households in the total Reich with 2 or more children, enumerated in the 1939 census; percentages evacuated, same as B.

-4 Total number of persons estimated at 16.9 per thousand population, based on the birth rate in the total Reich; number evacuated, 66 percent in the cities bombed in 1943, 44 percent in the cities bombed only in 1942, and 33 percent in non-bombed cities in bombed areas.

-5 Total number of persons estimated at 6.3 percent of the total population, or half the number of women over 45 estimated on the basis of the distribution in the total Reich in the 1939 census; number evacuated, 50 percent in cities bombed in 1943, 32 percent in cities bombed only in 1942, and 25 percent in non-bombed cities in bombed areas.

-6 Total number of persons estimated at 1.9 percent of the total population, or half the number of men over 65 estimated on the basis of the distribution in the total Reich in the 1939 census; number evacuated, 30 percent in the cities bombed in 1943, 20 percent in the cities bombed only in 1942, and 15 percent in the non-bombed cities in bombed areas.

areas and forbidding others than authorized persons to move into these areas. Originally, the evacuation centers were at a great distance from the bombed areas in presumably safe areas in the east, but recent reports indicate that the scheme has been changed to one of evacuation to places within the bomb-threatened Gau - presumably small villages and open country. The change in plan indicates a breakdown in the old system which may be explained in either or both of two ways: (1) the housing and feeding facilities of the originally designated reception centers have become overtaxed; (2) the strain on the transportation system which results from scattering families so widely has been so great that the disadvantages far outweigh the advantages now that the distant areas of the east are threatened with bombing.

3. Child Evacuation. In 1940 the "Extended Child Evacuation Scheme" was established. The original purpose of the scheme was to send children away from the bombed areas to camps in the scenic parts of Germany and also to foreign countries such as Hungary, Poland, Denmark, Bulgaria, Slovakia - for a six or nine months' rest.

As late as March 1943, the six-month evacuation plan was being carried out, and probably temporary evacuation of children to camps took place during the summer months. A German press report late in June stated that 1,000 children from exposed German areas would visit 17 camps that were being

established in Denmark this year. In July and August there were reports of children being sent to camps in Poland and Lithuania.

In addition to the temporary evacuation of children to camps, the Reich Defense Commissar is now empowered to evacuate all schools from threatened areas. During this spring and summer, the Gau Baden received great numbers of evacuees and entire schools from Westphalia, including all the Dortmund schools, both pupils and teachers. It is not clear whether these school children are sheltered in dormitories especially built for them or whether they are billeted in private homes. In some cases even the camps which were discussed in the pre- paragraphs are not dormitories but merely day camps staffed with Hitler Youth Leaders, teachers, doctors and nurses to care for the children who are billeted in private homes. In Hungary, 8,000 homes were chosen from 16,000 applications to take in children; thousands of people in Niederdonau have volunteered to take in children. The following statement which appeared in the Brüsseler Zeitung of 15 August 1943 indicates that the evacuation schools involve mothers as well as children: "Parents not immediately following the schools to safer areas are responsible for their children's continuation of studies." Thus a great part of the evacuation is in family groups which causes a heavy strain on housing facilities in the reception centers.

4. Regulations Regarding the Evacuation and Sheltering of Evacuees Other Than Children. In order to restrict evacuation to those who are not engaged in essential work, and also to control the flow of evacuees to the various centers of reception, each person wishing to leave the threatened city must obtain a departure permit from the branch office of the local War Damage Office before he can purchase a train ticket. Departure permits are issued only to those not essential to the life of the community, and then only when a certificate has been received from the Party or the commune guaranteeing him a place to stay in the reception center. Persons wishing to go to relatives must have "relative registration" cards filled in by the relatives to be visited, showing that they are prepared to receive guests, and approved by the local Party officials. The NSV is in charge of evacuation, arranging for accommodations in the reception areas, commandeering special trains, and paying the traveling expenses of those who have been bombed out.

Evacuation allowances are paid to evacuees in accordance with their needs. The maximum payments are 20 RM per month for the family head, 10 RM for every member of the family over eight years and 8 RM for every member under eight years. In addition, the following forms of assistance are given: (1) necessary living expenses, (2) rent, (3) full rent compensation for the dwelling from which they evacuated if this dwelling is not occupied by some member of the family, (4) assistance to

the sick , to pregnant women and to nursing mothers, (5) educational contribution for children, (6) assistance to meet special obligations, (7) economic assistance for an enterprise shut down because of evacuation. These allowances are adjusted according to the size of the evacuee's income from outside sources.

Until very recently, evacuation was considered a temporary measure - generally for a three, six, or nine months period, after which the evacuees returned to their homes. However, since the bombing has been so concentrated and destructive, evacuation has taken on a more permanent character. The following item appeared in the Bodinsee Rundschau of 16 September 1943: "It is rumored that evacuated women and children will be permitted to return to their home towns at the beginning of the winter. The rumor is false; people are urgently warned against it, as shelter, food, and fuel are unavailable in the former place of residence; therefore if evacuees return they would be faced with tremendous difficulties. All evacuees are urged to remain where billeted."

Each bombed region has one or more Gaue designated as its evacuee reception center. In July the decree regarding the intensive utilization of dwelling space - subdivision of large dwellings, requisitioning of extra rooms, and conversion of commercial establishments - described in Part II was applied to reception centers as well as to bombed areas.

Through these measures, 1,048,000 rooms, including those in the 93,000 dwellings gained through conversion, were made available in areas of the Old Reich outside the bombed cities and other cities of 50,000 inhabitants or more within the bombed Gau.

It may be seen that evacuation solves the housing problem in the bombed cities but aggravates it in the rest of the country. Obviously there is not enough space available in existing dwellings to house all evacuees within the boundaries of the Old Reich. However, evacuation has not been confined to areas within the Old Reich. Austria, where housing has been extremely scarce for years, received large numbers of evacuees from all over Germany; other evacuees were sent to Poland, Estonia, Latvia, Lithuania, the Protectorate; others have been reported in Norway, Denmark, Holland, France. Housing was already scarce in these areas and the influx of so many evacuees has created a critical situation. The problem is partly solved by placing the Germans in ghettos from which the Jews have been evacuated and which have been disinfected. Additional space for billeting is created by drafting people from these areas for military or labor service in Germany. However, transfer of foreign labor to Germany affects the housing situation in Germany inasmuch as the building of barracks for them competes with the building of barracks for other workers. With the military situation worsening for

Germany, evaduation into non-German areas as a means of alleviating the housing shortage will increasingly lose its value. Germans have always disliked evacuation to Poland, because they fear the Poles; now that the Red Army is menacing these eastern areas, the tendency for evacuated people to move into the countryside near their own city will increase; moreover those people who have been evacuated into the occupied countries will return to Germany. These tendencies will increase the strain on German housing. To relieve it construction of new dwellings may have to be started. Reports have been received indicating that dwellings are being built in the reception areas to accommodate evacuees, and the new scheme proposed by Ley for the construction of garden homes in the country, described in the section of this report on construction, indicates that the need for new housing has now reached a point at which German officials are forced to allocate labor and materials to meet it.

C. Intensive Utilization of Existing Structures

1. Conversion of Non-residential Structures into Dwellings And Subdivision of Large Apartments.

a. General. In March 1943, the Delegate-General for the Regulation of the Building Industry issued the following order concerning immediate measures following bomb and fire damage:

> "The chiefs of the emergency services are empowered to order the division of large dwellings, conversion and equipment of former dwellings now used for other purposes, conversion of other rooms into dwellings, extension of attics, and the preparation for habitation of new buildings on which work has been suspended. The expenditure on each additional dwelling must not exceed RM 1,000 or, where partially-built dwellings are made habitable or attics extended, RM 1,500. The total number of new dwellings created is to be approximately equal to the number of dwellings destroyed or rendered uninhabitable for the duration of the war. Only in very exceptional cases and with the written consent of the Delegate-General for Building, may such additional dwellings be created in anticipation of raids, that is, before people have actually been bombed out."

b. Subdivision. Subdivision of large dwellings is estimated to yield a total of 30,650 dwellings in the Old Reich, of which 6,600 are located in bombed cities. This estimate is based on the number of dwellings with 7 or more rooms in existence in January 1942. Of the 150,600 such dwellings available at that time, 12.9 percent were assumed to have been destroyed by air raids since, and 95 percent of all remaining dwellings in that class were assumed to be fully utilized.

As for single person households it has been assumed

that 1 percent of them occupy a dwelling alone and could be forced to surrender it. This would make available 20,750 dwellings in the Old Reich of which 4,760 are in bombed cities.

51,400 additional dwellings -- 11,300 in bombed cities alone -- could thus be made available by subdivision and expropriation. (See Table 3, for details).

A more fertile source of new dwellings created through conversion are the commercial enterprises closed down under the rationalization order of March 1943. The purpose of the "closing down" order was to free labor for the war industries by closing down all commercial establishments, wholesale and retail, not absolutely essential for supplying the population, all skilled-craft establishments not necessary for the war economy, and all establishments for catering and lodging -- such as night clubs, bars, expensive restaurants -- not necessary for the war economy or for supplying the population.

It has been estimated that of the approximately 750,000 retail stores in existence early in 1943, no more and possibly less than 20 percent would be closed. About 150,000 stores certainly represents the upper limit. The proportion of wholesale enterprises closed can be assumed to be half that of retail stores, placing the number closed at 10,000 -- on the basis of 100,000 still operating in 1943. Very few craft shops are believed to have been shut down, since most of them are either engaged in war work or are essential. Of the 1,500,000 shops no more than 75,000 can have been shut

down. Finally, of the 250,000 hotels and restaurants only very few appear to come under the definition used in the "closing down" decree. 10-15,000 seems an ample allowance.

Altogether, 250,000 establishments can be assumed to have been closed since March 1943. Estimating that 30 percent of the premises can be converted into dwellings, the yield amounts to 75,000 dwellings, 20,000 of them in bombed cities.

All premises left empty as a result of the closing-down campaign were required to be registered at the office of the Gauwohnungskommissar, who disposes of all vacant premises, including those which became vacant as a result of conscription. Premises which formerly were flats and had been converted into offices, shops, or other commercial establishments had to be reported to the Gauwohnungskommissar by 31 March 1944. These offices later were forced to vacate former flats and move into the premises which had been vacated as a result of the closing campaign.

c. Requisitioning of Vacant Apartments. According to a decree issued by Goring in October 1942, and effective until 31 October 1945 all dwellings which become vacant or which have been newly erected must be reported to the communal authorities within a fortnight of their becoming vacant. The authorities then submit to the landlord a list of prospective tenants who are eligible according to a priority system which

includes families with many children or families of disabled veterans or of men who have lost their lives in the war. The landlord is free to choose his tenants from this list. If the authorities do not submit such a list within a fortnight, they must be notified and if a list is not forthcoming within another fortnight, the dwelling may be regarded as freed from the restrictions of the decree. Originally, dwellings in houses containing only one or two dwellings and dwellings consisting of only one room or one room plus kitchen were not included in the decree, but a further decree of 27 February 1943 states that in the bombed areas, no difference is made with regard to floor space, the number of flats in the house, etc. -- all vacant space will be requisitioned. Tenants and landlords who conclude a contract in violation of these orders may be fined up to 5,000 RM, and the tenant can expect to be dispossessed. In addition, under the Control of Dwelling Space Decree of 27 February 1943, every person in Germany who had more than one separate furnished or unfurnished residence for his own or his family's use had to report this to the local authority of the area in which the residences were located.

A new decree regarding apartments vacated because of bomb damage was reported in the Deutsche Allgemeine Zeitung, 13 October 1943. It guarantees the former tenant the right to a place in the bombed apartment house after repair of the building. However, exceptions may be made in the public

interest -- bombed-out armament workers may be assigned to flats of tenants whose presence is less important; large apartments formerly rented by single persons will not be released to them alone.

d. Room Rationing and Billeting. One of the quickest ways of sheltering bombed-out people is by billeting them in existing homes. A survey was made in Germany last spring to determine the amount of unused dwelling space available in the Reich. According to the decree of 22 June 1943, an apartment was considered not fully utilized if the number of rooms exceeded the number of persons by more than one. However, in July 1943 Ley announced that the Reich policy aimed at giving each person one room (special regulations for Berlin provided that each family was entitled to one more room than the number of members). All rooms in excess of this number were requisitioned by the authorities to be reserved for billeting bombing victims, and anyone renting such rooms without the authorization of the Quartieramt was to be punished.

In order to determine the number of persons that were able to be accommodated through billeting in the bombed cities themselves, and in the whole Old Reich, it was assumed that only the larger units would contain spare rooms. Accordingly it was estimated that 5 percent of the dwellings having 4 - 6 rooms and 25 percent of those having 7 or more rooms (excluding the dwellings with 7 or more rooms which were

converted into smaller units) had an average of one extra room. As of 1 October 1943, there were thus available for billeting purposes 1,118,000 rooms in the Old Reich of which 255,000 were in bombed cities. Adding those rooms to the rooms made available in the converted dwellings, we arrive at an estimate of 1,422,000 rooms made available in the Old Reich as a whole, of which 325,000 are in the bombed cities and -- of great significance from the point of view of evacuation -- 1,048,000 outside of evacuated cities. Table 6 on the following page presents the relevant figures.

Table 6. EMERGENCY DEMAND FOR SHELTER, AND SUPPLY AVAILABLE IN EXISTING STRUCTURES, OLD REICH, OCTOBER 1943

	Old Reich	Bombed Cities[a]	Other Evacuated Cities	Outside Evacuated Cities
A. Dwellings available through conversion[b]	126,400	29,300	4,000	93,100
B. Rooms available through conversion[c]	304,200	70,000	9,900	224,300
Rooms available through billeting[d]	1,117,900	254,900	39,200	823,800
Rooms available	1,422,100	324,900	49,100	1,048,100
C. Total dwellings rendered uninhabitable by bombing, as of 1 October 1943[e]	674,900	674,900	h	h
D. Number of persons bombed out, as of 1 October 1943[f]	2,261,000	2,261,000	h	h
E. Number of evacuees as of 1 October 1943[g]	4,537,000	4,207,000	330,000	h

a Cities bombed as of 1 October 1943.

b See Table 3 (A).

c See Table 3 (B).

d See Table 3 (C).

e OSS estimate.

f Ibid.

g See Table 5.

h Information not available.

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D. Repairs

Recognizing the growing role of repair, the German government in January 1941 amended the Rent Law of 1924 in regard to the provision dealing with compulsory repairs to apartments and houses in cases where the landlord has neglected to make them. The original law applied only to small apartments in old buildings; the new amendment extends the application to all privately owned apartments and houses. Furthermore the authorities charged with administering the law may require the tenants to pay a part of the rent corresponding to the cost of the repairs to the authority ordering the execution of the repairs instead of to the landlord. If the tenants carry out the repairs themselves, they may retain a corresponding part of the rent.

The following may serve as an example of makeshift repair. An advertisement by the Paratect-Gesellschaft appeared in the Deutsche Bergwerks-Zeitung, 4 March 1943, under the heading of "Quick Repair of Roof Damage" stating that if one applies "Paratect I" cold to cracks and holes in roofs, it will permanently prevent any leakage. "A bucket containing 25 kg. of Paratect I, which suffices for over a hundred repairs, costs only 17-50 RM and can be supplied for the time being, but only in urgent cases."